

UMASS/AMHERST



312066016830832

GOVERNMENT DOCUMENTS
COLLECTION

JUL 1 1983

University of Massachusetts
Depository Copy

Metropolitan District Commission

ANNUAL REPORT

**FISCAL YEAR
ENDING
JUNE 30, 1981**

INDEX
Annual Report - FY '81
METROPOLITAN DISTRICT COMMISSION

<u>ITEM</u>	<u>PAGE</u>
Letter from the Commissioner	i
District Membership	1-2
Officials	3
Parks Division	4-10
Water Division	11-14
Sewerage Division	15-18
MDC Police	19
Equal Employment Opportunity/Affirmative Action	20
MDC Reorganization	21-22
Office of Contract Administration	23
Financial Statements:	24-25
Expenditures	26
Income	27
Outstanding Debt	28
Employees	29
Personnel Expenditures	30
Total Assessments - 1980	31-32



The Commonwealth of Massachusetts
Metropolitan District Commission
20 Somerset Street, Boston 02108

TERRENCE J. GEOGHEGAN
COMMISSIONER

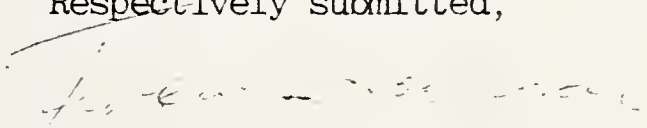
To His Excellency the Governor and the Secretary of Environmental Affairs:
To the Honorable Senate and House of Representatives:
To the Honorable Mayors, Selectmen and Municipal Officials:
To the Public of the Metropolitan Parks, Sewer and Water Districts:

The Metropolitan District Commission submits herewith a report on activities and other pertinent information for the fiscal year ending June 30, 1981, in accordance with provisions of Massachusetts General Laws.

This report represents a broad overview of MDC activity during the fiscal year and relates to future plans for providing essential services to the nearly 2.5 million citizens served by the MDC.

I am hopeful that the information contained in this report will bring about a greater understanding of the MDC and its mission to satisfy basic human needs, meet environmental goals and enhance the quality of life for all Massachusetts citizens.

Respectively submitted,


Terrence J. Geoghegan
Commissioner

DISTRICT MEMBERSHIP

	Water	Parks	Sewerage
Arlington	X	X	X
Ashland			X
Belmont	X	X	X
*Bedford			X
Boston	X	X	X
Braintree		X	X
Brookline	X	X	X
Burlington			X
Cambridge	X	X	X
Canton	X	X	X
Chelsea	X	X	X
Cohasset		X	
Dedham		X	X
Dover		X	
Everett	X	X	X
Framingham			X
Hingham		X	X
*Holbrook			X
Hull		X	
Lexington	X		X
*Lynn		X	
Lynnfield Water Dist.	X		
Malden	X	X	X
Marblehead	X		
Medford	X	X	X
Melrose	X	X	X
Milton	X	X	X
Nahant	X	X	
Natick			X
Needham	X	X	X
Newton	X	X	X
Norwood	X		X
Peabody	X		
Quincy	X	X	X
Randolph			X
Reading			X
Revere	X	X	X
Saugus	X	X	
Somerville	X	X	X
Stoneham	X	X	X
Stoughton			X
Swampscott	X	X	
Wakefield	X	X	X
Walpole			X

*Lynn became partial member in February of 1983.

DISTRICT MEMBERSHIP (Cont'd)

	Water	Parks	Sewerage
Waltham	X	X	X
Watertown	X	X	X
*Wellesley	X	X	X
Weston	X	X	
Westwood		X	X
Weymouth		X	X
Wilmington			X
Winchester	X	X	X
Winthrop	X	X	X
Woburn	X		X
TOTALS	<u>34</u>	<u>37</u>	<u>43</u>

Beyond the Water District the MDC furnishes the entire water supply for Chicopee, South Hadley Fire District No. 1 and Wilbraham, a partial supply to Clinton, Framingham, Leominster, Marlboro, Northboro and Southboro, and an emergency standby connection for Worcester.

Membership

3 Districts	24
2 Districts	12
1 District	<u>18</u>
	54

* Bedford joined the Sewerage District in June, 1970, with sewage for part of the town handled through the town of Lexington under special contract. Holbrook became a member of the Sewerage District in January, 1971, but is not contributing sewage to the system.

** Wellesley was admitted to the Water District in March, 1974, but has not as yet begun to take water from its connection.

*** Agreements exist for emergency supplies to Bedford, Dedham, Hudson, Stoughton, and Westboro.



Digitized by the Internet Archive
in 2013 with funding from
Boston Library Consortium Member Libraries

<http://archive.org/details/annualrepor1981mass>

FY '81 OFFICIALS

Terrence J. Geoghegan, Commissioner

John Halloran, Director of Public Information and Public Relations

John McDonough, Superintendent of Police

Francis J. Swain, Director of Personnel

James T. Cody, Director of Affirmative Action

Jeremiah A. Falvey, Director of Right of Way

Robert Merriam, Director of Employee Relations

Paul McDevitt, Legislative Officer

Robert Quinn, Director of Finance

Joel B. Chase, Director of Sewerage

Joseph Moran, MDC Secretary

Robert Williams, Director of Parks

Francis Faucher, Acting Director of Water

John Wright, General Counsel

William T. Kenney, Director of Central Services

Martin, Weiss, Director & Chief Engineer of Construction Division

PARKS

During the fiscal year ending June 30, 1982, the MDC Parks District (consisting of the former operating divisions of Park Engineering, Construction Engineering, Parks Recreation, and Environmental Quality) awarded 34 contracts totalling \$8.7 million for the improvement, rehabilitation, and maintenance of the 168 miles of parkways, 98 bridges, 20 pedestrian footbridges, 220 traffic intersections, 10,000 street lights, and numerous miles of bikepaths owned and maintained by the MDC. The division awarded an additional 37 contracts at \$18.7 million for the rehabilitation and upkeep of the nearly 15,000 acres of MDC-owned parklands, including five major reservations, 17 miles of coastal beaches, 23 skating rinks, 19 swimming pools, three 18-hole golf courses, three harbor islands, the Charles, Mystic, and Neponset Rivers, and a wide variety of other recreational facilities and parks.

The MDC continues to improve its parkways and surrounding areas for commuter and pleasure motorists. The four major roadway rehabilitation projects totalling \$1.8 million completed during the fiscal year were: the reconstruction of North Border Road in Winchester; Phase I reconstruction of the Fenway and Park Drive; replacement and upgrading of guard rails throughout the district; and, the installation of pavement markings to help nighttime motorists.

Other parkway improvements made during the fiscal year included the replacement of sidewalks, landscape improvements (planting trees and grass), roadway fencing, traffic controls and signals, and the changeover from utility-owned to MDC-owned street lighting in a street light modernization program.

The division also undertook emergency repairs to reinforce and repave the expansion joints on the Harvard Bridge (connecting Cambridge to Boston over the Charles River), and to seal the water leaks within the Storrow Drive Tunnel in Boston, as well as within the Memorial Drive underpass in Cambridge.

Work began, also during the fiscal year, on two major bridge improvement projects: a \$2.8 million contract was awarded to upgrade and repair the Monsignor William J. Casey Overpass in Jamaica Plain, and also a \$2.8 million contract was awarded for site preparation for the future replacement of the General Lawrence Bridge in Medford.

The division annually awards 14 maintenance contracts estimated to be approximately \$3 million to maintain and operate the roadways and recreational facilities owned and operated by the MDC.

Also in progress during the fiscal year were three major reservation improvement projects, continued site improvement work at several park facilities, and the completion of repairs at four locations which subsequently became available to the public during the year.

Fiscal 1981 Starts

Landscaping, drainage, bank, and site work began as part of a \$250,000 contract to provide aesthetic quality improvements to Fellsmere Pond at the Middlesex Fells Reservation in Malden.

The Parks Division purchased the Belle Isle Marsh Reservation, formerly the Suffolk Downs Drive-In Theatre, as a means of preserving this last salt marsh in Boston. This 28-acre site is being developed as a passive park with open areas for informal athletic activity, at an estimated cost of \$1.1 million. The project also calls for the formation of a small island with a lookout tower over the marsh landscape, created by channeling into the division to allow salt water to flow in from the Belle Isle inlet. Two bridges will connect the island to the park area, while foot and bicycle paths will run throughout the park. The division plans to construct small hills within the 28 acres, and landscape the site with grass and shade trees.

Also undertaken by the Parks Division during fiscal 1981 was a \$570,000 restoration project of Tenean Beach Park. The Tenean Beach Park Development Project will transform what was a teenage beach hangout into a recreational park, complete with a new beach, grass areas, tennis and basketball courts, play equipment, new sidewalks, curbing, and wall work.

Continued Projects

To improve water quality at one of the many MDC-owned ponds and lakes, the Parks Division is constructing a water treatment plant located on the shore of the Lower Mystic Lake. Designed to treat the 100 million gallons of salt water which became trapped at the bottom of the lake following construction of the Craddock Dam in the early 1900's, treatment will involve the in-lake pumping of bottom anoxic waters to the treatment facility mixed with ferric chloride and ultimate discharge of the mixture into a nearby sewer. Once the treatment process is completed, the treatment plant building will be dismantled and relocated to another MDC-owned facility. A permanent aeration building will remain pumping air into the bottom layers of the lake to ensure continued lake restoration. Total cost of the project is estimated to be \$1.1 million, \$300,000 of which is budgeted for the purchase of treatment chemicals.

Reconstruction of the culvert in the Coytemore Lea Park area of Malden continued, too, as part of a \$330,000 flood control project to improve flood water flow and drainage in that area of Malden.

Also continued during fiscal 1981 was construction of the Franklin Park Zoo's Tropical Forest Pavillion at a cost of \$9.3 million.

Completed Projects

As further proof of its commitment to improve and rehabilitate public recreation facilities, the Parks Division completed a \$46,000 landscaping and construction project creating a new park within Boston's Science Park. Located adjacent to the boat lock at the old Charles River Dam, this new landscaped area affords picnickers and outdoor enthusiasts the opportunity to watch the boats entering and leaving the basin while they relax in a beautiful park.

Additionally, Peddocks Island and its buildings underwent temporary repairs costing \$120,000 during the fiscal year, which availed the recreational facility for use by the public.

Erected along the Charles during 1981 was a new nautical-type flagpole, topped by a lookout tower, at Community Boating, Inc. on the lower basin.

The Parks Division also installed additional fencing along the Mystic River and a security alarm system at the MDC Testing Laboratory in Waltham to provide for increased public protection.

Major construction at Hull and Winthrop to repair damage incurred during the blizzard of 1978 was completed during fiscal year 1981. Work involved the repair of seawalls, ramps, and railings at Nantasket Beach at a cost of approximately \$1.2 million, while \$1.4 million was spent for seawall repairs, placement of rip rap, and substantial drainage improvements at Grover's Cliff and Winthrop Shore Drive in Winthrop.

Additional renovations totalling more than \$1.3 million were made to MDC-owned skating rinks and swimming pools during the year. Specifically, the division enclosed the Emmons Horrigan Ice Skating Rink in Charlestown and renovated the building at a total cost of \$271,000. It made further improvements totalling \$374,000 to the Metropolis Rink in Canton, and replaced the skating slab at the John W. Flynn Rink in Medford at a cost of \$381,000. The Joseph Lee Memorial Pool in Boston received a new heating system costing the Commission \$31,000, while an additional \$387,000 in repairs was allotted during the fiscal year for repairs to 18 other MDC swimming pools.

Finally, the division spent approximately \$250,000 to repair and replace roofs at the following MDC facilities: the Arlington Skating Rink Service Building, Arlington; Monsignor Daly Memorial Rink, Brighton-Newton Line; McCrehan Memorial Pool, Cambridge; the Sanitary Building, Winthrop; Lloyd Memorial Pool, Melrose; various roofs in the Nantasket Beach Reservation; and, at other locations in the Metropolitan Parks System.

STREET LIGHT MODERNIZATION PROGRAM

The MDC Parks Division continues in its long-range modernization of the 10,000 street light units along its 168 miles of parkway.

This program was begun six years ago to reduce the cost of lighting and to increase illumination to nighttime safety levels.

Specifically, the program involves a changeover from utility-owned, filed rate units, to MDC-owned and maintained, metered mercury and/or sodium vapor units. At the end of fiscal 1981 the changeover was 35 percent finished, and showed a 50 percent energy savings over the old system. Conversion of the remainder of the system will cost an estimated \$3 million and will be budgeted from capital outlay monies. The energy cost savings from the changeover yields a rapid payback for these capital outlays.

During the fiscal year approximately \$350,000 was spent converting the lights along Soldiers Field Road and along James J. Storrow Memorial Drive, from the Elliot Bridge to the Longfellow Bridge in Boston.

The MDC further maintains these metered streets lighting units under an annual street lighting maintenance contract which, for fiscal 1981, amounted to approximately \$400,000. The size of this contract will increase as more utility-owned units are converted to MDC-owned and metered units.

PEDDOCKS ISLAND

The 113 acres of Peddocks Island constitute one of the major historic and open space resources of the Boston Harbor Islands Park. The MDC has owned the island since 1972, but has been unable to obtain the major capital funds necessary to restore and rehabilitate the island and its 26 buildings known as Fort Andrews. In light of the ever decreasing availability of public dollars for such purposes, a decision was reached to explore the availability of private funds to upgrade the island.

In May, 1980, the Commission released a request for proposal (RFP) prepared with the pro bono assistance of the Mitre Corporation. The request for proposal solicited private interest, imagination, and experimentation, and was balanced by the constraints of the public interest in parkland. The Commission was looking for new blends of private investment and public policy, breaking new ground in this field.

The RFP process proceeded in two phases: the first a general concept proposal, and the second a refinement which required considerable detail concerning management and financing. Of the 10 Phase I proposals received, two were approved by the Review Committee (consisting of representatives from EOE, DEM, MDC, and the public) for Phase II work. Of the two Phase II proposals, one was submitted by a "for profit" group, the other by a non-profit organization. Only Peddocks Island Trust, Inc. (PITI), the non-profit group, completed the Phase II proposal. The Review Committee found their plan wanting in terms of financing and management, but exciting in concept. Therefore, the Commission declined to designate PITI as the manager/developer of the island, but endorsed the concept of the plan and directed the staff to negotiate further with PITI towards a tentative designation status. This tentative designation would be predicated on the strengthening of management and financial commitments and subsequent performance based on milestones. The negotiation process is now underway.

If successful, the PITI proposal will create a complex within the Fort Andrews buildings for a wide range of educational, research, and recreational facilities, with support services including restaurants and overnight accommodations. The development would emphasize marine-related activities including the establishment of a seal colony by the New England Aquarium, boating facilities, and instruction and the preservation of the West Head as a natural area.

ZOOS

Fiscal 1981 brought both the Stone and Franklin Park Zoos closer to completing major construction projects designed to provide new and improved exhibits for the animals, enrich the atmospheres of the facilities, and attract a greater number of tourists to the two zoos.

Stone Zoo

Public attention rivited to this MDC-owned "Behavioral Zoo" on June 1 with the birth of New England's first baby gorilla. Born to parents Sam and Gigi, the two Western Lowland Gorillas contributed by Peter Fuller and the Fuller Foundation, the baby male gorilla weighed in at 6 3/4 pounds, the largest gorilla born in captivity to date.

The morning following the birth, the infant was taken to a private home where it was decided he would be raised under the care of round-the-clock constant caretakers.

In preparation for the birth, Gigi received a six-month "Maternal Education Course" taught by Behavioral Psychologist Dr. Deborah Schildkraut, at the zoo. Schildkraut sought to instill in Gigi the maternal behavioral characteristics she lacked because of her own upbringing away from role models in the Cincinnati Zoo nursery.

Another notable birth took place at the zoo on April 30, when Betty the Orang-utang delivered a baby boy, her second successful birth.

Fiscal 1981 also brought the Stone Zoo the birth of a master plan to guide the zoo's renovation plans. The Stone Zoo Planning Team, comprised of representatives from the Boston Zoological Society and the MDC, targetted development toward a behavioral theme. It subsequently began to prepare an exhibit program, a written set of guidelines which include conceptual parameters for exhibits; and, guidelines for collection management, education programs, and public relations.

Future renovations will be made easier with the Commission's 1981 decision to accept voluntary admission fees at the zoo. Donations are to be placed in a Stone Zoo restricted fund explicitly designated for veterenary care, exhibit improvements, animal acquisitions, and professional staffing in areas of animal management, landscape architecture, education, and maintenance.

The zoo applied for and received a grant from the Institute for Museum Services to be used for the development of an exhibit program, a marketing and financial strategy to maximize the use of community resources and limited funds, and the development of a Community Awareness Program. Provisions of the grant also call for the design and construction of a prototype exhibit which will be used as an example for the "future zoo."

The Commission further contributed approximately \$200,000 towards the completion of the Mammal House, furnishing a new roof, a heating system, and two gorilla dens.

The zoo was also awarded \$10,000 from the Bayard Foundation for conversion of the lower portion of the Stone Zoo Aviary into a waterfowl marsh exhibit. That exhibit was also completed during the fiscal year.

Franklin Park Zoo

Massive construction and reconstruction of the New Zoo at Franklin Park nears completion, the Tropical Forest Pavillion and the Children's Zoo scheduled to be finished in 1983. The Metropolitan District Commission and the Boston Zoological Society continued to work closely together on these projects during 1981.

The Tropical Forest, a one-acre, enclosed pavillion -- complete with simulated tropical forest climate, waterfalls, and indigenous flora and fauna -- will be the largest enclosed naturalistic exhibit in the Northeast, and will enable visitors to wander through the exhibit as if they, too, were part of this environment. This project is supported, in part, by state funds.

The Children's Zoo, temporarily closed in April, 1980 for vital structural repairs, will be completely renovated and rebuilt. Just prior to its closing, the zoo was awarded a grant from the Charles Hayden Foundation to begin a master plan for a new Children's Zoo. Primarily the responsibility of the Boston Zoological Society, the building and design for the new Children's Zoo will be privately funded.

The theme of the Children's Zoo is "Cycles," chosen to encourage year-round visitation to its ever-changing displays. Graphics and exhibits representing the theme will include the "New England Barnyard," geared toward members of New England's 4-H clubs; a petting area; and, the "Prairie Dog" exhibit, a close-up, tunnel vision of a prairie dog village in its natural habitat.

Adjacent to the Children's Zoo will be the Community Resource Center, which will be available for community use as a family drop-in center and for special events by reservation. This building will have been made possible by a \$600,000 grant from the George Robert White Fund.

Both the Franklin Park and Stone Zoos are owned and operated by the Metropolitan District Commission and managed in cooperation with the Boston Zoological Society.

WATER DIVISION

The function of the MDC Water Division is to furnish pure water to local distribution systems of communities in the Metropolitan Water District and such other cities and towns as can be reasonably supplied.

Twenty-five communities receive their entire water supply and eight a partial supply from MDC tributaries. These communities encompass an area of 309 square miles and a total population of 1,780,160. The Town of Wellesley (pop. 26,590), which became the 34th member in 1974, has a "readiness to serve" agreement with the Commission and plans to rely on its own supply for the present. Ten communities in Central Massachusetts located near MDC reservoirs and aqueducts are supplied in whole or in part under special service agreements.

The Water District's sources are the Quabbin, Wachusett, and Sudbury watersheds and the runoff of the Ware River watershed during certain periods. Storage reservoirs on these watersheds have a capacity of 488 billion gallons, principally at Quabbin Reservoir with its capacity of 412 billion gallons and at Wachusett, which has a capacity of 65 billion gallons.

The water supply is delivered to Metropolitan Boston through 131 miles of aqueducts and tunnels and distributed via gravity through approximately 260 miles of pipelines.

Facilities under control of the Water Division include six storage reservoirs with 467 square miles of tributary watersheds, a water surface of 30,000 acres, four hydro-electric power stations, 16 miles of high tension power transmission lines, 1 distribution pumping stations to high service elevations, and 16 distribution reservoirs with a capacity of 3.1 billion gallons.

Ten contracts for construction work, maintenance, or repairs were granted during fiscal year 1981 for a total of \$2,583,890.

Long-Range Water Supply Planning

The tight water supply has led to a policy decision temporarily closing the door to accepting new members outside the 10 mile radius into the Metropolitan Water District until an additional water supply is obtained. The action has already affected four Metropolitan Boston communities with severe supply problems -- Bedford, North Reading, Stoughton, and a section of Lynnfield.

A long-feared water crisis has been averted only by four successive wet years during 1972-75, producing precipitation of 30.35 inches above average at the Quabbin watershed, which was followed in early 1976 by the first overflow in 15 years. Between 1976-1980, Quabbin received precipitation which was only 7.44 inches above average, and by the end of the year the reservoir was down 7.98 feet to 85.3 percent of capacity. Meanwhile,

District members reduced their demand by 8.7 million gallons per day (mgd) between 1972-1980. The average daily demand on the system during these eight years was 315 million gallons per day.

Engineers have long felt that Quabbin cannot be supported by regular precipitation. The reservoir's status is particularly significant for its 412 billion gallon capacity represents about 85 percent of total MDC water storage capacity, while its sources encompass approximately 69 percent of the system's watershed area. Water supply managers still remember the 1961-1964 drought which reduced Quabbin to 45 percent of its capacity, down by 34 feet and 227 billion gallons. A recent analysis based on current consumption levels indicated that a comparable drought today would cause a drop in the water level to 31 percent of capacity.

A detailed study of the MDC's long-range water supply plan to meet needs until the year 2020 and an accompanying environmental impact report began in March of 1980. The Cambridge firm of Wallace, Floyd, Ellenzweig, Moore, Inc. (WFFM) is the lead consultant for the study.

Phase I of the project was scheduled for completion in September, 1981. The objectives of this phase were to assess existing data on alternative sources of supply and on future water demands on the MDC system, and to recommend to the Massachusetts Environmental Policy Act unit (MEPA), factors to be covered in the Massachusetts environmental impact report.

Alternatives to be evaluated include: limited diversions of flood flows from the Connecticut River at Northfield, the Merrimack River at Tyngsborough, and the Millers River including Tully Lake; reactivation of up to 45 mgd from the entire Sudbury Reservoir system; pumping of groundwater from Plymouth Aquifer; user source development including rehabilitation of eight abandoned local water supplies in present MDC user communities; locating possible ground water sources in the Water District; development of any feasible sources in potential future communities; a permanent demand management program including water conservation and leakage repair; and, increased yield through watershed management at Quabbin and Wachusett. Desalination was reviewed and MEPA concurred with the recommendation that it not be considered as an alternative because of its high costs.

In addition to assessing the environmental, engineering, social, economic, and water yield costs and benefits of the various alternatives, the study will forecast MDC water needs over the 40 year period and include potential demands on the system by new communities. The study area includes 300 Massachusetts cities and towns as well as future needs of New Hampshire and Connecticut in relation to the Connecticut and Merrimack River alternatives.

1981 also saw the completion of an analysis of U.S. water conservation experience and of water use factors in MDC communities by domestic and non-domestic user categories. A model of the safe yield of the MDC system was developed by Arthur D. Little for future use to evaluate the effects of using one or more of the possible alternatives.

A full public information and participation program has been set up for the entire study period. The Northfield Citizens Advisory Committee renamed the Water Supply Citizens Advisory Committee, has been funded since 1978 by the MDC to advise throughout the study and EIR. A full-time executive director and part-time secretary serve the 36-member committee. Membership categories and operating procedures were established by the MDC, the Executive Office of Environmental Affairs, and the Connecticut River Steering Committee in a 1977 Memorandum of Understanding. Appointments to the committee are made by the Secretary of Environmental Affairs. A broad outreach program to inform citizens and officials in all affected areas through meetings, briefings, newsletters, and a WATS line has also been established by the consultants.

In May, 1981, a separate EIR contract began to examine the effects of reactivating the Sudbury Reservoir for use of up to 20 mdg. Parsons, Brinckerhoff, Quade, & Douglas, Inc. is lead consultant for this 18-month study. Consulting engineers Metcalf & Eddy are designing a pilot treatment plant for the reservoir. The MDC views the 20 mgd Sudbury option as a short-term solution to the present safe yield deficit. The long-range study will assess using up to 25 mgd more from the entire Sudbury system.

Continuing Projects

In maintaining and improving the infrastructure of the water system, the Water Division has begun to replace various sections of corroded steel pipelines and to reline the Weston Aqueduct. Additionally, design proceeded for automating the readout of the many revenue meters within the system. Actual construction toward automating the meters is scheduled to begin in FY 82.

To the north, a \$1.3 million pipeline was completed across Spot Pond Reservoir, connecting Spot Pond Pumping Station with a 48-inch pipeline to Woburn. Design began for an additional 9,400 feet, extending this pipeline to Route 128, as well as an additional 12,000 feet extending the pipeline to the Wakefield town line. Also to the north, construction started on a \$3.8 million pipeline, the first of a three-phase project which will ultimately yield 37,500 feet of new pipeline, which will improve water pressure in the Lynn area.

Work also continued on the design of the Rutland-Holden relief sewer and on the facilities plan for upgrading the Clinton Sewerage Treatment Plant. Both of these projects have received federal, as well as state funding.

As part of its ongoing maintenance program, the Water Division repaired and rebuilt two generators at the Cosgrove Power Plant in Clinton, erected a metal picket fence at the Waste Channel at Wachusett Dam in Clinton, installed an altitude valve at Turkey Hill Reservoir in Arlington, relined additional sections of the Weston Aqueduct, and installed a slate-covered, wood-structured frame roof on the Old Stone Church in West Boylston.

The forest resources of the MDC's watersheds yield millions of board feet of timber annually. Sale of this timber netted the Commission about \$190,000 during fiscal 1981. This revenue is returned to the District's water fund. The forestry management program is integral in maintaining the water yield and is currently being studied as a possible means of increasing the yield.

The water system also provides for the generation of hydroelectric power at three generating stations, thus contributing to the preservation of one of our other scarce natural resources: oil. The sale of this hydroelectric power during fiscal 1981 yielded the Commission approximately \$485,000. Recent contract negotiations with the utility companies have resulted in substantial increases in revenue from the sale of this power.

QUABBIN

Though it was created initially to supply fresh water to Metropolitan Boston communities, Quabbin Reservoir is also a fisherman's paradise as well as a haven for wildlife.

From mid-April to mid-October, Quabbin is open for both cold and warm water fishing, sport which generates approximately \$170,000 per year for the Commission. The reservation also features launches for private boats, and has rental facilities as well. 1981 brought a trial increase in the maximum size of outboard motorboats permitted on the reservoir; a maximum of 20 horsepower per boat, up from 10, may be launched in the reservoir. Additional changes made during 1981 included an increase in the parking, fishing, and boat rental fees at Quabbin. Boat rental fee is now \$1.00 per hour with a deposit of \$5.00 and a maximum charge of \$5.00 per day. Outboard motors are available for rental at \$2.00 per hour with a minimum charge of \$6.00 and a deposit of \$15.00 with a maximum charge of \$15.00. The total deposit for a boat and outboard motor is \$20.00, equal to the maximum charge per day. The fee for the boat and/or boat and motor includes parking and fishing privileges for up to three or four people, depending on the boat available, and three gallons of gasoline.

Parking fees were raised to \$2.00 per car and/or car with trailer. This fee includes the use of facilities for one person with a valid fishing license to fish from shore or a private boat. The fee for those 70 years or older will be \$1.00. Persons 14 years or younger, accompanied by an adult, will not be charged any fee. All other fishermen accompanying the boat owner or fishing from shore will be charged a fee of \$2.00.

In many ways, the Quabbin Reservation is ideal for wildlife. Its vast size and relative freedom from human disturbance make it a refuge unequalled by any other in the Commonwealth for beavers, muskrat, mink, otters, cottontails, weasels, raccoons, porcupines, fox, deer, and bobcats. The reservoir itself attracts a wide variety of birds and water fowl, many nesting, others in migratory passage. Because of the seclusion that Quabbin offers, bald and golden eagles have also been observed there.

SEWERAGE DIVISION

During fiscal year 1981, the Metropolitan District Commission Sewerage Division began several projects aimed at cleaning up Boston Harbor and the neighboring waters of the Charles, Mystic, and Neponset Rivers. The multi-million dollar pollution control program now underway is the outgrowth of recommendations made in the three-year Boston Harbor-Eastern Massachusetts Metropolitan Area (EMMA) study completed in 1976 for the MDC by Metcalf and Eddy, consulting engineers.

Principal recommendations which are now being actively pursued include the upgrading of the Deer Island and Nut Island sewage treatment plants; the elimination of sludge discharge into the harbor waters; an area-wide combined sewer overflow abatement program; and, extensions, repairs, and improvements to the Metropolitan District Commission sewerage system. Many of the ongoing projects are being financed, in part, by federal and state funds and, therefore, must satisfy the rigid requirements of the Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) as enforced by the U.S. Environmental Protection Agency (EPA).

In 1981, the Environmental Planning Division was incorporated into the Sewerage Division to allow for better coordination of the planning, management, and contract administration of the EMMA wastewater study with the operational and maintenance needs of the Metropolitan Sewerage District. Now, all phases of sewer projects -- from planning through construction services -- are handled by one division.

COMBINED SEWER OVERFLOW FACILITIES

Since the early 1970's, the Metropolitan District Commission has made substantial progress toward clean water goals in the Charles River Basin area. A major pollution source -- overflows of combined stormwater and sewage -- is being combatted in several ways: By rehabilitating tide-gates and overflow chambers which allow salt water intrusion into the sewer system; by separating the sanitary sewers and storm drains in the older cities of Cambridge and Somerville; by providing additional capacity in the interceptor sewers to minimize overflows; and, by constructing storm detention and chlorination stations to treat overflows before they enter area waterways.

The Charles River Marginal Conduit Project, which began in 1976, was successfully completed this year when the Charles River Estuary Pollution Control Facility in Cambridge went on line. This facility is designed to treat combined sewage flow from storms, the intensity of which occur once every five years, and to discharge the treated flow into Boston Harbor below the new Charles River Dam.

The Charles River Facility is two-phased: It has the ability to act as a dry weather flow or a storm flow pumping station. The dry

weather flow phase is a five million gallon per day capacity sewage pumping station which discharges to a sewer line in Charlestown. The storm phase station has a maximum capacity of 385 million gallons per day, which includes screening, settling, and chlorination of the storm flow, and eventual discharge into the harbor. In addition, there is advanced telemetering equipment, sampling procedures, and odor control systems which are used daily in the operation of the facility.

The Sewerage Division operates two other combined sewer overflow treatment facilities in the Charles River Basin -- the Cottage Farm Storm Water Detention and Chlorination Station in Cambridge, and the Somerville Marginal Facility in Somerville. Both these facilities, as a result of screening and chlorinating combined sewage and stormwater overflows, have helped to reduce the amount of solids and harmful bacteria discharged into the basin area.

The Charles River clean up, in conjunction with efforts by the cities of Cambridge and Boston, will make an appreciable difference in the upgrading of the Boston Harbor waters.

SEWERAGE SYSTEM UPGRADING

Facility planning is proceeding on numerous projects dealing with the rehabilitation or replacement of interceptor sewers and pumping stations within the Metropolitan Sewerage District. Most of the improvements being investigated were outlined in the 1976 EMMA study.

Two projects which have advanced to the design phase include the Relief of the Millbrook Valley Sewer and the Relief of the Framingham Extension Sewer, with estimated construction costs of \$7 million and \$17.5 million, respectively. Both these sewer lines have been experiencing severe overloads and additional capacity is needed in the lines to prevent back-ups and flooding in these areas.

The Sewerage Division program plan includes 12 other major upgrading projects which are scheduled to be completed during the next five years. The division has been working with the federal Environmental Protection Agency (EPA) and the State Division of Water Pollution Control to expedite these projects and to obtain as much federal and state financial support as possible.

INDUSTRIAL WASTE PROGRAM

An industrial waste program has been in existence in the Sewerage Division since 1973 to determine whether the division has been adhering to Metropolitan District Commission and federal requirements. Nearly 6,000

industries within the 43 member communities have been inspected, supplementing a prior questionnaire survey to all member communities. Violations were found in 640 industries which are presently pretreating, implementing pretreatment, or modifying their systems to comply with current standards.

The monitoring portion of the program was developed to maintain an inventory of the industrial wastes currently entering the system and to eliminate unacceptable concentrations of toxic and potentially deleterious substances. It includes sample collections by Metropolitan District Commission personnel and analyses of these industrial wastewater samples by an analytical laboratory firm under contract. The results of the analyses, in conjunction with information compiled in the inspection and permit programs, further assists in the determination of the acceptability of the wastewater discharge.

Industrial User Discharge permits have been issued to industrial users since the adoption on August 3, 1978 of the Metropolitan District Commission Sewer Use Rules and Regulations. Permits are granted for a specified period of time and require adherence to those conditions stated in the permit. All industries have either received their permit or will receive it by mid-1982. The division also has a septage waste monitoring and control program in effect to oversee local methods of control used to regulate scavenger service discharges of septic tank and cesspool wastes into the sewer system. This program also enables the Metropolitan District Commission to randomly check to see if wastes of an industrial nature are being deposited into septic tank disposal sites. As a result of this disposal, some towns have been requested to institute a procedure at the disposal site to aid the Metropolitan District Commission in eliminating industrial-type discharges at these locations.

Several localities outside the Metropolitan District Commission have applied for and been granted permission to discharge septage waste from their respective towns into the authorized site of a member town. These contractual agreements are issued on a yearly basis by the Metropolitan District Commission and require annual renewal. In addition, yearly acceptance is contingent upon receipt of progress reports at six month intervals outlining progress towards implementation of an acceptable alternate septage disposal method.

OPERATING DIVISIONS

An intricate collection and treatment system also falls within the jurisdiction of the Sewerage Division. Its vast sewage collection and pollution abatement functions require maintenance and operation of 10 pumping stations, two treatment plants, four pre-treatment headworks, a detention and chlorination station for combined stormwater and sewage overflows along the Charles River Basin, and 226 square miles of trunk sewers.

Forty-three cities and towns covering 406 square miles, with 2,185,855 inhabitants and a contributing population of 1,881,805 are members of the Sewerage District. Wastewater flows through 5,345 miles of local sewers

connected to Metropolitan District Commission trunk lines at 1,805 locations, an increase of 47 miles over the previous year. The municipal lines link 415,177 individual connections with the Metropolitan District Commission system, an increase of 3,272 in the past year. Per capita cost of sewerage operations in 1981 was \$11.69, of which \$7.40 was spent on maintenance and operation, and \$4.29 on debt service.

Average daily sewage load was 379 million gallons and the 24-hour maximum flow was 716 million gallons per day passing through primary treatment and chlorination at the Deer Island and Nut Island plants before discharge via outfalls into outer Boston Harbor. The process provides screening and grit removal, prechlorination, pre-aeration, primary sedimentation, and post chlorination. Raw sludge is treated by thickening and high rate digestion prior to discharge, producing a by-product of methane gas utilized for electrical power and heating.

There were 22 contracts awarded by the division or in force during fiscal 1981, totalling \$7.5 million, and including \$4 million for the installation of twin 54 inch siphons under the Weymouth Fore River.

METROPOLITAN DISTRICT POLICE

During the fiscal year ending June 30, 1981, Metropolitan District Police investigated 4,558 crimes, nearly 75 percent of which were closed by arrests. During the same period, there were 3,566 motor vehicle accidents within MDC jurisdiction. Police issued 43,969 citations, nearly 15,000 more than the previous year. MDC Police recovered 522 stolen motor vehicles, 144 of which were taken from MDC roadways. Recovered stolen property was valued at nearly \$1.5 million. Assistance was furnished to the general public on 13,112 occasions, while area hospitals received aid in the delivery of blood or vial medical supplies by MDC Police in 44 instances.

Highly trained patrol officers on call for specialized duties were frequently utilized throughout the year. These men responded 84 times for SCUBA underwater recovery assignments, and on 15 occasions as a bridge inspection team. Similarly, the K-9 unit filled 129 requests for service.

The summer season once again brought a crackdown on public drinking at beaches, mostly during evening hours, netting a record number of arrests for disturbances involving youth groups. Supplementary manpower from the highly mobile Traffic-Oriented Patrol Squad (TOPS) was utilized to deal with the problem and ensure orderly conditions for beachgoers.

The popularity of the MDC's Harbor Islands and growing marine traffic in the nearby harbor waters continue to require considerable patrol activity by the Harbor Patrol. Utilizing four boats, two sergeants, and 14 patrolmen, the Harbor Patrol operates on a round-the-clock basis, providing emergency services for the boating community and monitoring all activities within the harbor and the wharves and docks in the vicinity.

MDC Police have the authority to enforce all of the laws of the Commonwealth including those pertaining to water traffic and those promulgated by the Commission governing the use of its properties. MDC Police may be contacted via the emergency telephone number 523-1212 or at the boathouse near the Charles River Dam at 727-0537. They may also be reached on the Marine Channel 16, which is monitored by MDC Police at all times.

EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION

The Metropolitan District Commission maintains and promotes an equal employment/affirmative action policy. In an effort to eradicate discrimination on the basis of race, color, sex, age, national origin, religion, and handicapped/veteran status, we maintain a vigorous results-oriented program of affirmative action in our overall personnel policies and practices.

During fiscal year 1981, the agency submitted a revised affirmative action plan to the State Office of Affirmative Action for approval. The plan met all legal criteria and was approved. A vital component of the affirmative action plan is an aggressive outreach and recruitment program designed to ensure a complement of qualified applicants for employment opportunities.

Another vital component is contract compliance. The objectives are to ensure minority and women business participation in MDC construction activities. This component is administered by the Affirmative Action Offices' Contract Compliance Officer with the assistance of both a Minority Community Liaison Committee and the State Office of Minority Business Affairs.

Additional activities during fiscal year 1981 included:

- utilization of minority community-based agencies and the Boston School Department to recruit and train minority lifeguards.
- negotiations of reasonable minority summer seasonal hiring goals.
- increased interaction with the Division of Personnel Administration, Bureau of Recruitment and Information Office, and community recruitment resources to ensure applicant flow.
- technical assistance to Community Boating, Inc., to ensure minority participation in utilization and staffing of the facility.

THE MDC REORGANIZATION

In an effort to better serve its member communities, the MDC in 1981 acted on the recommendation of management consultants McKinsey and Company, Inc. that its structure change from one based on engineering to one directed toward management. In so doing, the MDC was divided into three major operating divisions: Parks, Sewerage, and Water. In the reorganization the Construction division was decentralized and the Environmental Divisions were completely eliminated. A Contract Administrator's Office was established to improve the efficiency and effectiveness of MDC projects.

In restructuring the Commission, each division was granted the authority to act independent of each other. All three divisions have their own Administrative, Operational, Maintenance, Project Planning and Management, and Emergency units. While each of the divisions has a certain autonomy, major policy decisions, program approvals, and support services emanate from the Commission itself and its Administration.

Reporting directly to the Commission is the Parks Director who heads four functioning subdivisions: Administration, Project Planning and Management, Operations and Maintenance, and Reservations and Recreation.

The Operations and Maintenance section is responsible for flood control in the metropolitan district, overseeing dams, sluiceways and pump stations, drawbridge operations, vehicle maintenance, and emergency services. Additionally, this section programs major maintenance projects throughout the division.

The Project Planning and Management section is involved in the planning of new projects, the rehabilitation and repair of existing structures and reservations which require study, design, engineering, contract document preparation, and supervision of construction projects. This section also assesses and manages the contracts for major repairs of parks and recreational facilities, parkways, bridges, flood control facilities, locks and drawbridges, traffic controls and signals, and street lighting.

Each fiscal year, 14 annual maintenance contracts estimated at approximately \$3 million are prepared, awarded, and administered under the guidance of this section. These contracts are awarded for the operation and maintenance of 168 miles of parkways, 10,000 street lights, 220 traffic intersections, 19 swimming pools, 23 skating rinks, three traffic tunnels, several locks and drawbridges and underwater structures, and the electronic sound systems at the various recreational and specialized facilities and stadiums.

The Reservations and Recreation section of the Parks Division is responsible for the day to day operations of parks, reservations, zoos, recreational facilities, and parkways. This responsibility includes programming, scheduling, and daily maintenance. The recreational activities of Reservations and Recreation include the supervision and coordination of management agreements, contract services and those services provided by staff.

The MDC Parks Administration section is responsible for the overall business functions of the division. This subdivision is accountable for personnel management, financial management (including budget control and billing), and contract administration. This section also provides stenographic and secretarial services and issues and controls all recreational permits for use throughout the MDC Parks System.

OFFICE OF THE CONTRACT ADMINISTRATOR

The Office of the Contract Administrator was created with the reorganization of the MDC in April, 1981. Formerly of the Engineering Division, James F. McCann was appointed Contract Administrator by the Commissioner.

The Contract Administrator is responsible for the project management system within the MDC. These responsibilities include monitoring all projects underway within the Divisions of the Agency.

Specifically, the Contract Administrator negotiates fees and overhead rates for consultants; reviews cost overruns, change orders and extra work claims; investigates and resolves claims arising from contract disputes; approves for payment invoices from all projects; negotiates division disputes about extra work claims with consultants and contractors; and, expedites projects and project information.

Additionally, the Contract Administrator officiates at the Consultant Selection Committee as Chairman of that committee, and is the Prequalification Officer in charge of that office, its staff, and committee.

The Office of the Contract Administrator was created to improve the efficiency and effectiveness of the MDC in carrying out its projects. Four objectives have been established toward this end:

- negotiation of contractual arrangement with consultants and contractors for special expertise needed by the MDC;
- processing of payments and handling of inquiries from consultants and contractors, thus enabling the Project Engineer to work solely on expediting the project at hand;
- standardization and simplification of procedures for project management, thus facilitating maximum control over the projects; and,
- direction of timely and accurate attention to problem projects.

FINANCIAL STATEMENT

As a state agency delivering water, sewerage, and recreational services to more than 2.5 million people in the Metropolitan Boston area, the Metropolitan District Commission is financed primarily by assessments on 54 communities which are members of one or more of these three districts.

Additional monies are received from the State Highway Fund, state allocations for certain flood control projects, and from miscellaneous revenues collected through fees, rentals, licenses, permits, fines, penalties, sales, and federal reimbursements or grants.

The MDC's operating budget and bond issues for capital construction are subject to approval by the Governor and Legislature.

Parks

Recreational Capital Construction: By bond issues, amortized by assessments based on property tax valuations of communities in the district.

Maintenance of Boulevards and Reservations, and Police Costs: 67 percent from the State Highway Fund and 33 percent from member cities and towns, with one-third based on population and two-thirds on valuation.

Highway and Construction: From legislative allocations from state highway bond issues.

Water

Charge of \$240 per million gallons, with special provisions for communities outside the Water District.

Sewerage

Debt requirements: Assessed on the basis of total population and a "population equivalent" formula for contributing industries, commercial establishments, and other users, which became effective July 1, 1976.

Maintenance and Operation Expenses: Apportioned in relation to residential population actually served by the system and a "population equivalent" charge for industries, etc.

During the fiscal year ending June 30, 1981, the Commission spent a total of \$62,799,810 on maintenance and operations, an increase of \$4,530,761 over 1980. Interest and principal payments on bonds issued for capital projects and water fund deficits amounted to \$28,828,508, an increase of \$1,877,944 over 1980. The combined expenditure was \$91,628,318, \$6,408,705 over fiscal 1980.

An additional \$11,587,726 was expended for highway construction from state highway bond funds, and for certain flood control projects from special authorizations, which do not reflect in assessments on MDC cities and towns.

EXPENDITURES

	1981		1980	
	<u>Operations</u>	<u>Debt</u>	<u>Operations</u>	<u>Debt</u>
Administration	\$1,370,804	\$ -----	\$ 1,304,623	-----
Parks*	32,933,058	7,618,960	31,008,053	\$ 8,611,842
Sewerage	15,479,509	9,388,820	13,573,218	6,949,109
Water	13,016,439	11,820,728	12,383,155	11,389,613
	<hr/>	<hr/>	<hr/>	<hr/>
	\$62,799,810	\$ 28,828,508	\$ 58,269,049	\$ 26,950,564
	\$ 91,628,318		\$ 85,219,613	

* Includes the cost of MDC Police operations.

NOTE: An additional \$11,587,408 was spent in 1981 and \$7,987,259 for highway construction projects financed by state highway bond issues and flood control and other special authorizations financed by state General Fund bond issues rather than assessments on MDC cities and towns.

PRINCIPAL INCOME SOURCES

	1981	1980	
Parks	\$ 18,469,605	\$ 19,197,234	37 Cities & Towns
Sewerage	25,556,949	22,021,039	43 Cities & Towns
Water	23,657,252	24,408,022	34 Cities & Towns
State Highway Fund	22,658,017	21,361,837	
Revenue	6,171,882	5,562,822	Admissions, Sales, Fees, etc.

NOTE: Income figures for Parks, Sewerage and Water differ slightly from assessments table due to various adjustments. Sale of power, licenses, fees, concession permits, etc. do not accrue to the Commission for re-use, but rather flow directly into the appropriate fund and thereby reduces assessments against cities and towns. Federal reimbursements ordinarily have the same effect.

OUTSTANDING DEBT, June 30
(In millions of dollars)

	Sewerage	Water*	Parks	Total
1981	92.238	111.714	67.835	266.787
1980	98.227	118.371	67.333	283.931
1979	101.066	117.647	66.591	285.304
1978	86.955	172.466	60.234	269.655
1977	86.349	126.257	52.941	265.547

* Includes Water Fund deficit debt.

TOTAL PERMANENT AND TEMPORARY EMPLOYEES AS OF JUNE 30

	<u>1981</u>			<u>1980</u>			<u>1979</u>		
	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.	Total
Administration	42	---	42	52	1	53	52	1	53
Engineering	---	238	238	---	240	240	---	241	241
Highway Engineering	---	25	25	---	27	27	---	27	27
Parks & Parks Eng.	571	773	1,344	588	1,062	1,650	647	1,131	1,778
Police	424	85	509	457	81	538	461	83	544
Sewerage	418	---	418	416	---	416	435	---	435
Water	<u>400</u>	<u>4</u>	<u>404</u>	<u>424</u>	<u>5</u>	<u>429</u>	<u>442</u>	<u>3</u>	<u>445</u>
TOTAL	1,855	1,125	2,980	1,937	1,416	3,353	2,037	1,486	3,523

PERSONNEL EXPENDITURES*

	<u>1981</u>	<u>1980</u>	<u>1979</u>
Administration	712,768	726,601	642,293
Engineering	4,558,517	4,741,743	4,296,209
Highway Engineering	479,826	558,522	470,364
Parks & Parks Engineering	12,727,589	12,069,908	12,018,034
Police	10,145,712	9,875,380	9,832,937
Sewerage	6,868,485	6,504,136	6,183,482
Water	<u>5,854,724</u>	<u>6,927,276</u>	<u>5,672,835</u>
 TOTAL	 41,347,621	 41,403,566	 39,116,154

* Includes permanent, temporary, and seasonal employees as of June 30.

TOTAL ASSESSMENTS FOR METROPOLITAN DISTRICTS FOR 1980

Cities and Towns	Metropolitan Water	Metropolitan Parks and Boulevards	Metropolitan Sewerage System	TOTAL
Arlington	\$ 416,875.92	\$ 564,710.98	\$ 478,939.43	\$ 1,460,526.33
Ashland			65,057.99	65,057.99
Bedford			113,479.14	113,479.14
Belmont	260,159.52	412,151.53	278,323.71	950,634.76
Boston	11,993,466.00	4,118,151.92	6,775,787.84	22,887,405.76
Braintree		514,033.19	370,072.67	884,105.86
Brookline	660,221.28	665,233.13	515,746.53	1,841,200.94
Burlington			249,206.38	249,206.38
Cambridge		894,909.67	1,254,020.35	2,148,930.02
Canton	106,293.12	247,618.79	158,292.77	512,204.68
Chelsea	276,822.00	150,867.86	253,506.69	681,196.55
Cohasset		5,262.06		
Dedham		356,608.15	245,836.45	602,444.60
Dover		128,336.81		128,336.81
Everett	742,561.68	622,017.72	515,846.24	1,880,425.64
Framingham			606,858.08	606,858.08
Hingham		305,136.63	51,307.49	356,444.12
Holbrook			39,813.98	39,813.98
Hull		105,965.93		105,965.93
Lexington	463,337.28		337,248.49	800,585.77
Lynn		577,809.16		577,809.16
Lynnfield Water Dist.	36,917.28			36,917.28
Malden	536,283.12	445,420.21	539,373.12	1,521,076.45
Marblehead	197,867.52			197,867.52
Medford	764,844.72	563,582.13	586,268.21	1,914,695.06
Melrose	270,425.76	320,851.06	311,635.03	902,911.85
Milton	272,916.96	343,678.18	250,880.21	867,475.35
Nahant	37,900.32	56,056.15		93,956.47
Natick			268,920.42	268,920.42
Needham	95,747.28	503,297.93	293,371.33	892,416.54
Newton	914,531.52	1,203,627.85	908,138.25	3,026,297.62
Norwood	359,556.00		331,502.90	691,058.90
Peabody	43,300.80			43,300.80
Quincy	1,027,895.76	921,121.94	938,270.91	2,887,288.61
Randolph			214,634.13	214,634.13
Reading			197,639.16	197,639.16
Revere	445,945.92	345,163.34	381,748.40	1,172,857.66
Saugus	352,282.56	328,413.30		680,695.86
Somerville	828,801.84	546,649.31	790,763.44	2,166,214.59
Stoneham	340,806.48	272,870.53	203,131.34	816,808.35
Stoughton			150,549.33	150,549.33
Swampscott	182,548.80	103,122.96		285,671.76
Wakefield	140,863.20	303,326.71	249,056.43	693,246.34
Walpole			258,997.12	258,997.12

TOTAL ASSESSMENTS FOR METROPOLITAN DISTRICTS FOR 1980 (cont'd)

Cities and Towns	Metropolitan Water	Metropolitan Parks and Boulevards	Metropolitan Sewerage System	TOTAL
Waltham	\$ 1,004,292.72	\$ 730,345.18	\$ 804,697.35	\$ 2,539,335.25
Watertown	397,387.44	388,298.65	370,368.24	1,156,054.33
Wellesley		520,139.05	231,989.65	752,128.70
Weston	91,258.80	266,059.75		357,318.55
Westwood		255,344.46	82,439.10	337,783.56
Weymouth		587,924.34	438,304.13	1,026,228.47
Wilmington			95,153.09	95,153.09
Winchester	78,482.64	326,524.37	227,026.46	632,033.47
Winthrop	183,065.04	177,602.84	194,199.57	554,867.45
Woburn	46,022.40		392,637.47	438,659.87
	<hr/>	<hr/>	<hr/>	<hr/>
	\$23,569,681.68	\$19,178,233.77	\$22,021,039.02	\$64,768,954.47

